

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : **59-144249**

(43)Date of publication of application : **18.08.1984**

(51)Int.Cl.

**H04L 27/00**

**H04J 15/00**

**H04L 27/18**

(21)Application number : **58-018123**

(71)Applicant : **NEC CORP**

(22)Date of filing : **08.02.1983**

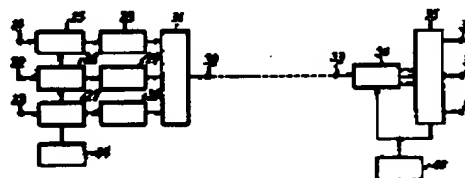
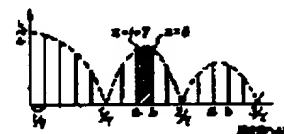
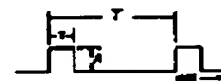
(72)Inventor : **YAMADA TAKAHIKO**

### (54) PULSE SIGNAL TRANSMISSION SYSTEM

(57)Abstract:

**PURPOSE:** To transmit a fast-speed signal by using a filter narrow in band width by passing plural pulse trains successively shifted in phase through BPFs which have such band widths that passes only two adjacent higher harmonics derived by Fourier series expansion in pulse waveforms.

**CONSTITUTION:** Data having the same waveform of  $\tau$ -second width are inputted to input terminals 21 23 at intervals of  $T$  seconds and inputted to pulse signal rearranging circuits 25 27. The circuits 25 27 rearrange successively the input signals by shifting in phase by  $120^\circ$  under the control of a rearrangement control circuit 24, and the BPFs 28 29 extract desired higher harmonics. The BPFs 28 30 have the band widths (a) and (b) for passing only at least two adjacent higher harmonics derived by Fourier series expansion representing the input pulse waveform. The output of the BPFs 28 and 29 are put together by a synthesizer 31 to obtain an eight-phase modulated wave. A reception side detects the phase shifted point of each train by a phase demodulator 34 and performs the pulse-phase adjustment and logical processing of each train by a logical circuit 35 to output three original pulse signal trains.



### LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2000 Japan Patent Office